May 8, 2001

FACT SHEET

Final Air Toxics Regulation for Manufacturing of Nutritional Yeast

TODAY'S ACTION

, The Environmental Protection Agency (EPA) is promulgating a regulation that will reduce emissions of toxic air pollutants and volatile organic compounds from nutritional yeast manufacturing plants. Nutritional yeast is a product that is used as an ingredient in yeast-raised baked products, and as a nutritional food additive.

, Air toxics are those pollutants that are known or suspected to cause cancer or other serious health effects. Volatile organic compounds are pollutants that contribute to the formation of ground-level ozone, or smog.

, EPA developed today's final rule in consultation with representatives of the nutritional yeast manufacturing industry as well as representatives of state and local agencies.

WHAT ARE THE HEALTH AND ENVIRONMENTAL BENEFITS?

Ë EPA's final rule will reduce emissions of volatile organic compounds from new and existing nutritional yeast manufacturing plants by approximately 90 tons annually.

Ë Volatile organic compounds contribute significantly to ground-level ozone, or smog, which has been shown to cause adverse effects on human health and can damage forests and crops.

Ë Acetaldehyde, which represents approximately twenty percent of the total volatile organic compound emissions from nutritional yeast manufacturing operations, is both a toxic air pollutant and a volatile organic compound. Today's proposal would reduce nationwide emissions of acetaldehyde by approximately 30 tons annually.

Ë Exposure to acetaldehyde may be associated with a number of adverse health effects, including cancer, respiratory illness, and nervous system, dermal, developmental, and/or reproductive effects.

BACKGROUND

Ë Under the Clean Air Act, EPA is required to regulate emissions of 188 specific air toxics. On July 16, 1992, EPA published a list of industry groups, known as source categories, that emit one or more of these air toxics. For listed categories of "major" sources (those that have the potential to emit 10 tons/year or more of a listed pollutant or 25 tons/year or more of a combination of pollutants), the Clean Air Act requires EPA to develop standards that are based on stringent air pollution controls, known as maximum achievable control technology (MACT).

Ë EPA's published list of industry groups to be regulated includes "baker's yeast manufacturing." Since

development of the rule began, EPA has changed the title of that source category to “manufacturing of nutritional yeast,” to avoid potential confusion with the bakery industry.

WHAT WOULD EPA'S FINAL RULE REQUIRE?

- EPA's final rule limits the emissions of volatile organic compounds, which include the toxic air pollutant acetaldehyde, from fermenter vessels used to manufacture nutritional yeast. The requirements in EPA’s final regulation are very similar to requirements in existing State volatile organic compound regulations for this industry, which currently affect five of the ten nutritional yeast manufacturing facilities EPA expects to be subject to today’s final rule.

- The final rule also requires continuous monitoring of emissions and/or operating parameters which indicate the emissions of volatile organic compounds and/or acetaldehyde.

- The final rule allows flexibility for facilities to meet the air emission standards using a variety of technologies. However, all of the affected facilities have indicated that they plan to meet the final standards using pollution prevention techniques and process controls.

WHO WOULD BE AFFECTED BY EPA'S FINAL RULE?

- The EPA knows of ten nutritional yeast manufacturing facilities that are expected to be subject to today’s final rule. EPA’s modeled emission estimates for these ten facilities indicate that they are “major” sources under the Clean Air Act, and thus are subject to regulation.

- Facilities regulated by today’s final rule are yeast manufacturing facilities. These facilities do not produce baked goods or other consumable foods; rather, they produce yeast. The yeast they produce is distributed and sold as a food additive, to be used by bakeries, certain other food producers, and by consumers.

HOW MUCH WOULD THE FINAL RULE COST?

- Five of the existing nutritional yeast manufacturing facilities that would be subject to EPA’s final rule are already subject to State volatile organic compound regulations. For these five facilities, EPA estimates the annual compliance costs of today’s final rule would be $60,000, attributable to additional recordkeeping and reporting requirements under the national EPA standards.

- For the five facilities that are not currently complying with a State volatile organic compound regulation, EPA estimates that the annual compliance costs will average about $130,000 per facility, attributable to process modifications, installation of monitoring equipment, and administrative requirements.

FOR MORE INFORMATION

- Interested parties can download the proposed rule from EPA's web site on the Internet under “recent actions” at the following address: *http://www.epa.gov/ttn/oarpg*. For further information about the proposed rule, contact David Markwordt of EPA's Office of Air Quality Planning and Standards at (919) 541-0837 or e-mail at markwordt.david@epamail.epa.gov.

- EPA's Office of Air and Radiation’s homepage on the Internet contains a wide range of information on the air toxics program, as well as many other air pollution programs and issues. The Office of Air and Radiation's home page address is: *http://www.epa.gov/oar*.